

A35026-PCT-USA - 072944.0154

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Keun Hoon Yoo
Serial No. : 10/070,772 Examiner : Jeffrey C. Mullis
Filed : March 6, 2002 Group Art Unit: 1711
For : PROCESS FOR PREPARING THERMOPLASTIC
TRANSPARENT RESIN

DECLARATION OF Chan Hong Lee
UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

1. I, Chan Hong Lee do declare:
2. I am a vice-president at LG Chemical.
3. My Brief experiences are as follows ;
1988.2 Ph.D at Univ. of Oklahoma (Chem. Eng. & Materials Science)
1988~ Senior Researcher at Lucky Central Research Center.
1995~ Director at SR R&D of LG Chem, Ltd.
4. I have reviewed Minoru et al. (JP 2000-178405).
5. I am familiar with the invention of the above-identified application.
6. I have reviewed the U.S. Patent Office Action mailed November 22, 2004,
which rejected all the pending claims 1-8 and 10 under 35 U.S.C. 103 over Minoru et al.
7. Minoru et al. simply discloses various emulsifiers but does not teach or
suggest the advantages of the present invention using the specific emulsifiers. Especially,

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what Minoru et al. specifically discloses is use of 2.4 part by weight of sodium laurate as emulsifier in the example. See paragraph [0047].

8. In order to show the advantages of the present invention over Minoru et al., the below three comparative experiments have been conducted. It is to be noted that these comparative examples were conducted in comparison with the Example 1 described in the present specification.

A) A transparent resin was prepared in the same method as in the Example 1 except that 1.2 part by weight of emulsifier alkylaryl sulfonate in the initial state of c) grafting process of 1) was used, and its physical properties were measured. Impact resistance was deteriorated, color was not good, and moisture and heat resistance were also sub-standard in the transparent resin samples, wherein impact strength was 14.0, color(value b) was 1.5, initial Haze was 2.5, and Haze deviation after the moisture and heat resistance test was about 13.

In this Comparative Example 1, only the amount of the emulsifier used in the process was varied by excess amount of about 1 part by weight. The resulted resin showed clear deteriorated moisture and heat resistance as indicated by the above Haze deviation value obtained after the moisture and heat resistance test.

B) A transparent resin was prepared in the same method as in the Example 1 except that 0.3 part by weight of emulsifier sodium laurate in the initial stage of c) grafting process of 1) was used, and its physical properties were measured. Color was not good, and moisture and heat resistance were also sub-standard in the transparent resin



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samples, wherein impact strength was 15.5 color(value b) was 2.5, initial Haze was 4.0, and Haze deviation after the moisture and heat resistance test was about 18.

This experiment is targeted to show that adoption of mere small amount of any emulsifier would not provide the superior moisture and heat resistance of the present invention. Only 0.3 part by weight of sodium laurate, which was specifically disclosed in Minoru et al. was used in this example. The resulted resin show high instability to moisture and heat as indicated by the Haze deviation of 18.

C) A transparent resin was prepared in the same method as in the Example 1 except that 2.5 part by weight of emulsifier sodium laurate in the initial stage of c) grafting process of 1) was used, and its physical properties were measured. Color was not good, and moisture and heat resistance were also sub-standard in the transparent resin samples, wherein impact strength was 14, color(value b) was 1.0, initial Haze was 5.0, and Haze deviation after the moisture and heat resistance test was more than 30.

The exact same amount of sodium laurate as used in Minoru et al. was used in this experiment. Again, the moisture and heat resistance of the resulted resin was very poor.

As shown above, Minoru et al does not teach or suggest use of the specific emulsifier to prepare a transparent resin having good moisture and heat resistance. Thus, Minoru et al. does not make the present invention to one of skill in the art.

9. I hereby declare further that all statements made herein by my own knowledge are true and that all statements made on information and belief are believed to be

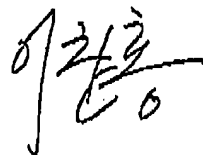


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true and further that I make these statements with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issuing therein.

Dated: March 14, 2005

Chan Hong Lee



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